[redacted], B., Insh.-kapitan 3 ranga

The ship and radioactivity. Veen. znan. 41 no.10:35 O '65.
(MIRA 18:10)

SOV-120-58-3-25/33

AUTHORS: Malkiel', G. S., Sukhanov, B. I.

TITLE: A Pulsed High Frequency Ion Source (Impul'snyy vysokochastotnyy istochnik ionov)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 3, pp 100-101 (USSR)

ABSTRACT: A high frequency source in which the discharge is excited using a h.f. oscillator is described. The extracting potential applied between the anode and the probe is also obtained from a pulse generator. The construction of the source is shown in Fig.1. The envelope is made of glass while the extracting electrode is of an aluminium alloy and the anode is made of graphite. The shape of the channel in the probe is shown separately in Fig.1. The high frequency oscillator works on two GI7B valves. Voltage pulses 5 kV in amplitude and 8 μsec long are applied to the anodes of the valves. The voltage pulses are obtained from a modulator including a hydrogen thyratron. Since the average power applied to the plasma does not exceed 30 Watts no special cooling is necessary. The transit time between the boundary of the plasma and the probe, corresponding to a final proton energy of 20-30 keV, is of the order of 0.1 μsec. Hence if the extracting pulse is shorter than 0.2-0.3 μsec the focussing

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A Pulsed High Frequency Ion Source

of ions becomes much worse and the output current rapidly decreases. When the width of the extracting pulse is 0.8 μsec the width of the current pulse at the target is 0.5 μsec. It was shown experimentally that the energy of the protons does not change over the duration of the extracting pulse. Fig.2 shows the magnitude of the ion current obtained from the source as a function of the position of the extracting pulse relative to pulse which excites the plasma. The proton current is proportional to $V^{3/2}$ where V is the magnitude of the voltage pulse applied to the source. The optimum pressure in the source is 10^{-2} mm Hg. When the diameter of the aperture in the probe is 3 mm the gas consumption is 30 cc/hour. At the same time the vacuum pump (pumping speed 500 litres/sec) maintains a vacuum of 1.5×10^{-5} mm. Fig.4 shows the output current as a function of the square of the diameter of the aperture in the probe. The relation is approximately linear. The content of atomic ions is 80-90%. The difference in the current for protons and deuterons

A Pulsed High Frequency Ion Source

is 10%. The source gives current pulses of 100-200 mA each, the length of each pulse being 1 μsec and the repetition frequency 10^2 sec^{-1}. V. Yu. Gavrilov is thanked for his help. There are 4 figures, no tables and 4 references, of which 3 are English and 1 Soviet.

SUBMITTED: September 7, 1957.

1. Ionic currents--Sources 2. Pulse generators--Equipment
3. Pulse generators--Performance

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S/120/60/000/004/005/028
E032/E414

21.2100

AUTHORS: Malkiel', G.S. and Sukhanov, B.I.

TITLE: A Pulsed Neutron Source

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No.4, pp.46-50

TEXT: A description is given of an accelerating tube producing pulses of 14 MeV neutrons. The pulse duration can lie between 10^{-6} and 10^{-8} sec and the repetition frequency is 500 cps. The instantaneous neutron flux in a pulse is 10^{12} neutrons per sec. The neutron tube employs the high-frequency ion source described by the present authors in Ref.4. This ion source gives instantaneous currents which are considerably greater than in the usual "continuous" high-frequency sources. The use of a pulsed high-frequency source enables one to obtain a large instantaneous neutron flux with tubes of relatively small dimensions and weight. Thus, when the current at the target is about 40 mA, and the total ion accelerating voltage is 180 kV, of which 30 kV is applied to the high-frequency source and 150 kV is applied to the target, the neutron output when the D + T reaction is employed is 10^{12} neutrons/sec. One of the biggest difficulties in the design of high-current accelerating tubes is the divergence of the ion beam

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A Pulsed Neutron Source

caused by the Coulomb repulsion between the beam particles. In the design described in the present paper, this is obviated by placing the target at a relatively small distance from the source. This is shown schematically in Fig.1. Ions from the source slit are passed through deflecting plates to which a pulsed voltage of up to 10 kV is applied. When this voltage is not applied to the plates, the ions do not enter the accelerating gap and hence the length of the neutron pulse is determined by the length of the pulse applied to the plates. A zirconium-tritium target on a tungsten base (14 mm diameter) is used. The second variant of the tube is shown in Fig.2. In this design a window for inspecting the focusing of the beam at the target is provided. All the supplies are derived from four pulse generators triggered through delay lines from a master generator (500 cps). The latter is in the form of a conventional square-pulse generator which develops 200 V across a 150 ohm load at two independent outputs. Pulses at output II can be delayed relative to pulses at output I by 1 to 6 μsec. This arrangement supplies the following pulse voltages: (1) 8 kV pulses 5 μsec long which are applied to the

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A Pulsed Neutron Source

ion source generator, (2) 40 kV pulses 1 μsec long for the ion source as shown in Fig.1 and 3, (3) rectangular pulses 10^{-8} to 10^{-6} sec having an amplitude of 10 kV which are applied to the deflecting plates, and (4) 150 kV accelerating pulses 2 - 3 μsec long. All the generators are based on the circuit shown in Fig.4. Neutron beams produced with this tube have been analysed by the time-of-flight method using a 20-channel time analyser. A description is given of the circuits employed in conjunction with the neutron detector and the form of a typical neutron pulse is shown in Fig.7 in which the time (μsec) is plotted along the horizontal axis. Fig.8, 9, 10 show typical neutron spectra for neutrons leaving 6 cm thick lead and graphite plates. In the case of Fig.8, the target was simply surrounded by a lead plate and the detector (stilbene) received the primary neutrons. The flight path in these measurements was 5 metres. In order to reduce the background due to direct 14 MeV neutrons, a copper rod 60 cm long and 25 mm in diameter was placed in their path. In these measurements the flight path was 6 m and the results obtained are

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shown in Fig.9 and 10. Here a polystyrene-based plastic scintillator was used as the detector (400 cm^3). A collimator was employed to reduce the background. The lower curve in each of these graphs shows the background level. A correction was made for the np cross section and the threshold of the detector. The tube has been found to be satisfactory after prolonged experiments and tests. The ion source has a lifetime in excess of 300 hours. Acknowledgment is expressed to N.V.Popov for assistance in the measurements. There are 10 figures and 4 references: 1 Soviet and 3 non-Soviet.

SUBMITTED: November 26, 1958 (initially)
June 14, 1959 (after revision)

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E032/E414

A Pulsed Neutron Source

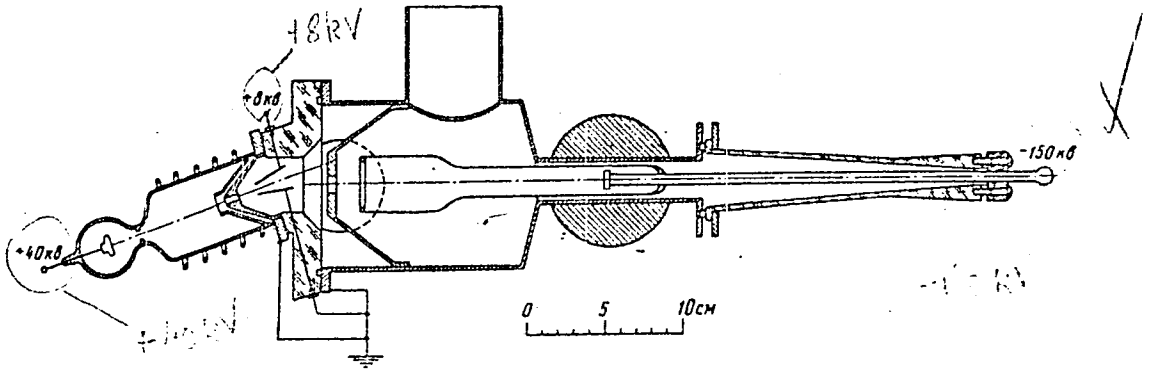

Рис. 1

Fig.1.

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A Pulsed Neutron Source

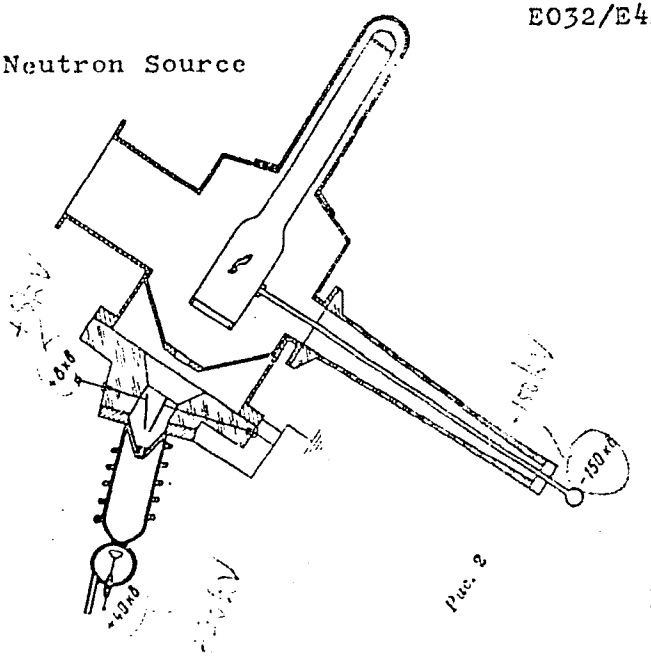

Fig.2.

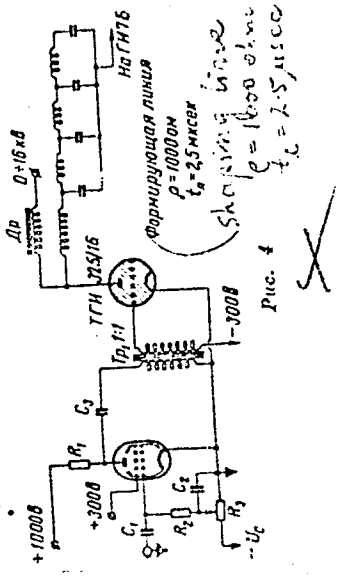

Fig.4.

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A Pulsed Neutron Source

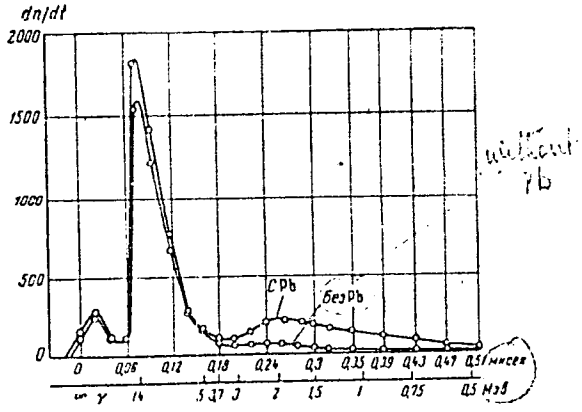

Рис. 8

Fig.8.

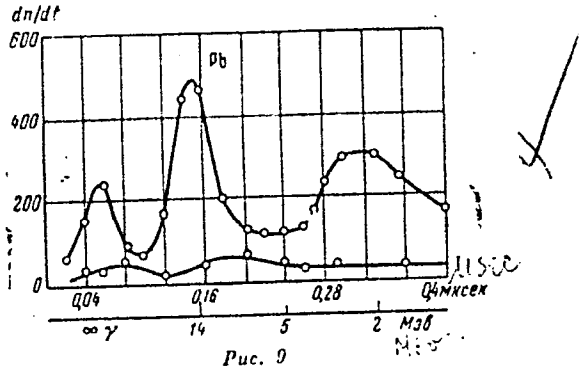

Рис. 9

Fig.9.

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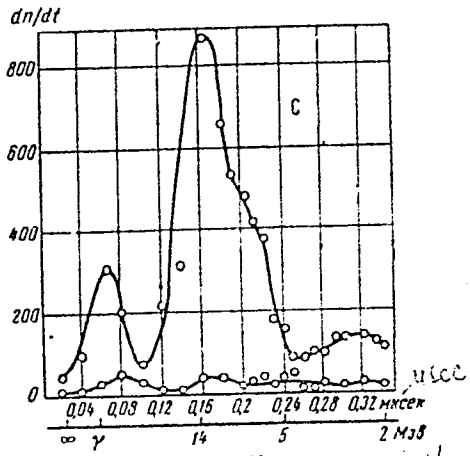

Рис. 10

Card 8/8

SUKHANOV, B.I.; RUKAVISHNIKOV, V.G.

Inelastic scattering of 14 Mev. neutrons on sodium, iron, nickel, and lead nuclei. Atom. energ. 11 no.4:398-399 O '61. (MIRA 14:9)
(Neutrons--Scattering) (Nuclei, Atomic)

SOV/122-59-3-12/42

AUTHOR: Sukhanov, B.K., Candidate of Technical Sciences

TITLE: New Electric Hoists with a Lifting Wire Rope (Novyye elektrotali s kanatnym tyagovym organom)

PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 3, pp 39-43 (USSR)

ABSTRACT: A series of new electric hoist types developed by the Central Design Office of the All-Union Scientific Research Institute for Lifting and Conveying Equipment (TsKB Vsesoyuznogo Nauchno-Issledovatel'skogo Instituta Pod"yemno-Transportnogo Mashinostroyeniya, VNIIPTMASh), is discussed and illustrated. 8 hoists in a range of capacities between 1/8th and 7.5 tons, all with a lifting speed of 8 m/min and various lifting heights, are specified in Table 1. The weight per useful hp is plotted in Fig 1. In hoists of 2 and 3 ton capacity the weight per hp barely exceeds 100 kg, shown to compare favourably with leading German and American makes. The hoist mechanisms are designed for a five-year service life. At ½-ton capacity and above, two-speed lifting is achieved by a two-winding motor. The low speed winding can be over-loaded 15% for 3 minutes. Up to ½-ton capacity, contactorless starting of the hoist motor is

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New Electric Hoists with a Lifting Wire Rope

carried out with a push-button direct-on starter illustrated in cross-section in Fig 2. Deeper pressing of the button connects the high-speed winding. 8 models of hoist carriages are offered as shown in the chart reproduced in Fig 4. In some of the variants, the lifting rope drum is the hoisting motor stator casing.

There are 8 figures and 3 tables.

BALAKHONOV, V.N., inzh.; SUKHANOV, B.V., inzh.

Telephone communications during the sinking of shafts excluding the reception and transmission of outside noises. Trudy KuzNII-shakhtostroia no.1:31-40 '63. (MIRA 17:8)

SHKHANOV, D. K.

SHKHANOV, D. K.- "Vertical Transportation of Books in Libraries." Min of Higher Education USSR, Moscow Order of Labor Red Banner Higher Technical School imeni Bauman, Moscow, 1955 (Dissertations for Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

SUKHANOV, D.K., kand.tekhn.nauk

New electric pulleys with hauling ropes. Vest.mash. 39 no.3:39-43 Mr '59. (MIRA 12:4)
(Pulleys)

SUKHANOV, Donat Konstantinovich, kand. tekhn. nauk; FLAVINSKIY, V.I., kand. tekhn. nauk, red.

[Modern monorail conveying] Sovremennyi monorel'sovyi transport. Leningrad, 1964. 40 p. (MIRA 18:1)

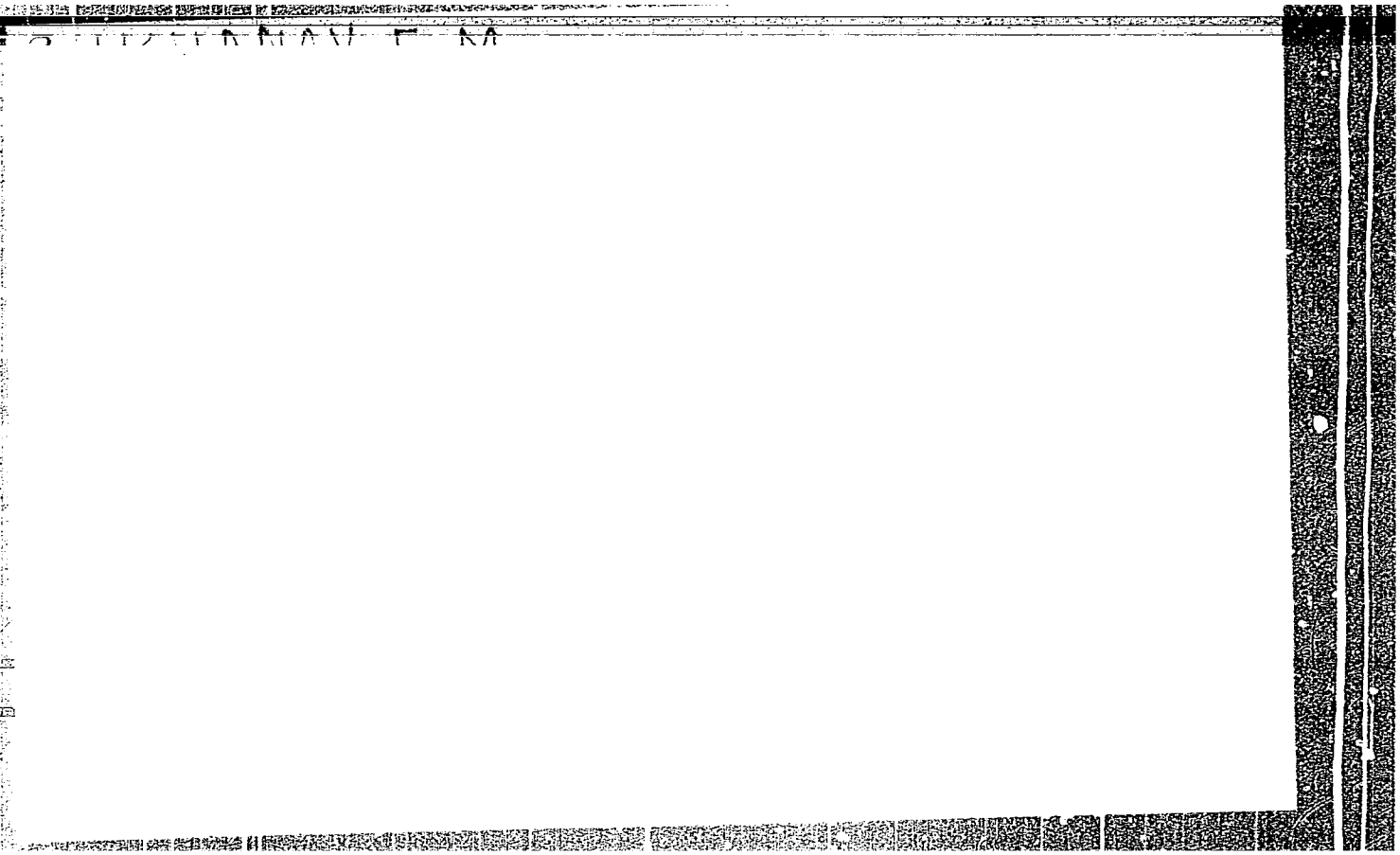
SUKHANOV, D. V.

Sukhanov, D. V. - "The problem of the peculiarities of the temperature cycle of the lowlands and forest glades," (With a foreword by Ye. Rubinshteyn), Trudy Glav. geofiz. observatorii, Issue 15, 1949, p. 3-74, - Bibliog: 10 items

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

SUKHANOV,D.Ya., kandidat tekhnicheskikh nauk; IVANOV,V.I., kandidat tekhnicheskikh nauk, redaktor; POPOVA,S.M., tekhnicheskiy redaktor

[Using rotary pumps for viscous liquids] Rabota lopastnykh nasosov na viazkikh zhidkostiakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1952. 32 p. [Microfilm] (MLRA 9:3)
(Pumping machinery)



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S/121/61/000/005/004/005
D040/D112

AUTHORS: Kudinov, V.A., and Sukhanov, E.S.

TITLE: The effect of the cutter edge shape on vibration in machine tools

PERIODICAL: Stanki i instrument, no. 5, 1961, 24-25

TEXT: The article gives the results of an investigation at ENIMS on the effect of the cutting edge shape on chatter. The experiments were made with different cutting edges (shown in Figure) with a 1A62 (1A62) thread cutting lathe and blanks from "45" steel 115 mm in diameter and 550 mm length, attached by one end in a three-jaw chuck, while the other thrust against a rotating center. The cutters were tipped with P18 (R18) steel and provided with an 8° clearance and 8° auxiliary clearance, and 45° auxiliary angle in plane view. The main top rake and angle were zero, i.e. the cutter's top was made flat, so that all the cutting edges were in a plane passing through the axis of the machine centers. The chatter resistance was 60-75% higher with a two-step edge and 125-140% higher with a three-step edge. The optimum c dimension proved to be 1 - 2 mm for

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The effect of the cutter edge shape...

cutters with a main plane angle 20 - 40°, and 2 - 4 mm for cutters with a 40 - 70° angle. The formula used for calculating the length of the cutting edge steps II and III (δ in the figure) was:

$$a = \frac{Kt_{lim} + c\cos\varphi}{\sin\varphi},$$

where K is a coefficient = 0.7 to 0.8; t_{lim} - the cutting depth limit; c - dimension shown in figure; φ - main plane angle (was 45° in experiments). The step I length was chosen for a 6 mm cutting depth. The edge tip radius of all cutters was 0.5 mm. The durability of the stepped cutting edges was not below normal, for each step works as an independent cutter with its main and auxiliary angles. The chatter decreasing effect of concave and convex cutting edges was the same as of stepped edges (varied between 20 and 140% lower chatter, depending on the point of contact between the cutting edge and workpiece and on the shape of the cutting edge). The concave shape was more effective than the convex, and both proved equivalent to the stepped, but the stepped shape is simpler to produce and takes less time to regrind. Grooves on the front and rear edge side had only slight chatter-damping effect (12 and 5% respectively) and affected the cutting life because of

curling and jamming of the chips in the grooves. The conclusion is that if chatter starts in cutting, it must be eliminated by using cutters with a stepped cutting edge, without changing the cutting speed and depth. There is 1 figure.

Card 3/4

SUKHANOV, E.S.

Investigating the effect of multitool turning on the vibration proofness of a lathe. Stan. i instr. 34 no.6:11-14 Je '63. (MIRA 16:7)

(Lathes—Vibration)

SUKHANOV, G. (Khasanskiy rayon, Primorskogo kraya).

First school reserve. IUn. nat. no.10:21 O '58. (MIRA 11:10)
(Maritime territory--National parks and reserves)

Sukhanov, G.I.

137-1958-3-5070

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 87 (USSR)

AUTHOR: Sukhanov, G.I.

TITLE: Stamping of Large Components From Heavy Steel Sheets (Shtampovka krupnogabaritnykh detaley iz tolstolistovoy stali)

PERIODICAL: V sb.: Kuznechno-shtampovochn. proiz-vo. Leningrad, Lenizdat, 1957, pp 177-192

ABSTRACT: A description of cold-drawing operations on hydraulic presses, drawing of complex shapes on a sheet-drawing press model LGS-2, methods employed in the stamping of closed-shape products, and the stamping of drawn cups (shells) with subsequent final drawing to size.

Ye.L.

Card 1/1

SUKHANOV, G. I.

25(1);18(5) PHASE I BOOK EXPLOITATION SOV/3382

Yekimov, Konstantin Konstantinovich, Vladimir Dmitriyevich Makrinov, and Georgiy Ivanovich Sukhanov

Izgotovleniye pokovok pod kovochnymi molotami i pressami (Hammer and Press Forging) Moscow, Mashgiz, 1958. 120 p. (Series: Bibliotechka kuznetsa-novatora, vyp. 4). 7,000 copies printed.

Reviewer: B. O. Bange, Engineer; Ed. (Title page): P. V. Kamnev, Candidate of Technical Sciences, Docent; Ed. (Inside book): G. T. Obolduyev, Engineer; Ed. of Publishing House: I. A. Borodulina; Tech. Ed.: O. V. Speranskaya; Managing Ed. for Literature on Machinery Manufacturing (Leningrad Division Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for engineering and technical personnel of forge shops and can also be used by engineering students.

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3. Drop hammer dies 13
4. Temperature ranges for forging and cooling regimes depending on brand of steel
5. Characteristic features of forging nonferrous metals and alloys 15

Ch. II. Examples of Expedient Drop-forging Processes (G. I. Sukhanov) 22
6. Making forgings with reduced allowances and laps 23
7. Production of ferrous metal forgings 35
8. Production of forgings using gas cutting and electric welding 39

Ch. III. Mechanization of Drop-forging Operations (K. K. Yekimov) 47
9. Conveying equipment and devices for charging and removing metal from furnaces and delivering it to hammer dies 47

20. Conveying equipment and devices in press-forging shops 104
21. Mechanisms and equipment for press forging 108
22. Examples of planning equipment and organizing work in press-forging shops 118

Bibliography 122

AVAILABLE: Library of Congress

Card 5/5

VK/mmh
4-27-60

SUKHANOV, G.I., inzh.

Technival conference on d.c. machines. Vest.elektroprom. 31 no.3: 79-80 Mr '60. (MIRA 13:6)
(Electric machinery--Direct current)

OBOLDUYEV, G.T.; PETROV, L.N.; SUKHANOV, G.I.; KAMNEV, P.V., kand. tekhn. nauk, red.; BULGAKOV, B.S., inzh., retsenzent

[Hammering and press forging] Kovka pod molotami i pressami. Moskva, Mashinostroenie, 1964. 206 p. (Bibliotechka kuznetsa-novatora, no.4) (MIRA 17:12)

SUKHANOV, G. K.

Bearings (Machinery)

New device for grinding spherical surfaces of bearing rings. Podshipnik, No. 2, 1952.

9. MONTHLY LIST OF RUSSIAN ACCESSIONS, Library of Congress, April 1952. Uncl.

SUKHANOV, G.K.

SUKHANOV, G.K., inzh.; LEVITSKIY, M.I., inzh.

The Bratsk Hydroelectric Power Station. Gidr.stroi. 26 no.11: 47-56 N '57. (MIRA 10:10)
(Bratsk Hydroelectric Power Station)

DEVLIKAMOV, V.V.; SUKHANOV, G.N.; BUL'CHUK, D.D.

Increasing oil recovery by means of electroosmosis. Izv. vys. ucheb. zav.; neft' i gaz no.8:63-67 '58. (MIRA 11:10)

1.Ufimskiy neftyanoy institut.
(Electroosmosis)

FROLOV, Boris Kuz'mich; SUKHANOV, G.K., red.

[Temperature control of concrete during the building of dams; practices in the construction of hydraulic structures in foreign countries] Regulirovanie temperaturnogo rezhima betona pri sooruzhenii plotin; iz opyta stroitel'stva gidrouzlov za rubezhom. Moskva, Energiia, 1964. 167 p. (MIRA 18:2)

DEVLIKAMOV, V.V.; SUKHANOV, G.N.; BUL'CHUK, D.D.

Calculation of oil recovery in flooding according to reservoir thicknesses. Izv. vys. ucheb. zav.; neft' i gaz 3 no.8:53-57 '60. (MIRA 14:4)

1. Ufimskiy neftyanoy institut.
(Oil field flooding)

SUKHANOV, I. (Yelets); STREL'CHENKO, V., shofer (Bryansk); KUZNETSOV, A.

Readers' suggestion. Za rul. 17 no.11:20 N '59. (MIRA 13:4)
(Motor vehicles)

SUKHANOV, I. M.

SUKHANOV, I. M.: "Investigation of the stability of a thin-walled housing to the effect of axial forces." Min Higher Education Ukrainian SSR. Khar'kov Construction Engineering Inst. Khar'kov, 1956. (Dissertation for the Degree of Candidate in Technical Sciences).

Source: Knizhnaya letopis' No. 28 1956 Moscow

UDC: 621.90.002"329

ACC NR: AP7004253

behavior of the tape transported at a rate up to 50 m/min by a special variable-speed mechanism; the tape length accommodated up to 150—350 frames. The above experiments yielded these findings: the bin height should not exceed 500 mm; not over 10 m tape per 10 cm bin width should be stored; 1 dm^2 of side wall should correspond to 1.8 m tape or less; bin lid is necessary; there is no essential relation between the tape speed and the bin capacity; the bin size is reasonable (500 x 500 x 36 mm) for tapes up to 35 m long. Orig. art. has: 2 figures.

SUB CODE: 09, 13 / SUBM DATE: none

Card 2/2

POROKHOV, F.F., prof.; NALETOV, A.V., [deceased]; Prinimali uchastiye: SKOVORODIN, N.M.,assistent; GRECHISHNIKOVA, G.D., starshiy laborant; KROTKOV, A.N., veter. vrach; SUKHANOV, K.M., veterin, vrach

Importance of the biomycin-vitamin concentrate in a combination of measures for ridding farms of infectious atrophic rhinitis of swine. Sbor. nauch. trud. Ivan. sel'khoz. Inst. no.19: 155-159 '62. (MIRA 17:1)

1. Kafedra veterinarii i zoogigiyeny (zav. - prof. F.F. Porokhov) Ivanovskogo sel'skokhozyaystvennogo instituta. 2. Nachal'nik Ivanovskogo oblastnogo veterinarnogo otdela (for Naletov). 3. Uchebnoye khozyaystvo "Vasil'yevskoye", Ivanovo (for Sukhanov).

8(0) SOV/112-59-2-2907

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 2, p 91 (USSR)

AUTHOR: Sukhanov, L. A.

TITLE: Simulating Large Power Transformers
(Modelirovaniye moshchnykh silovykh transformatorov)

PERIODICAL: Tr. Mezhvuzovsk. nauchno-tekhn. konferentsii po dal'nim elektroperedacham, 1956, Sekts 3. L., 1957, pp 44-54

ABSTRACT: Physical simulators are used for laboratory investigation of electrical systems and their components. Two types of simulators of large power transformers are used: (1) geometrically-similar simulators that provide a similarity of electromagnetic fields; these simulators are intended for investigating wave phenomena in windings and other phenomena in the structural members; (2) simulators that reproduce the fundamental phenomena only in terms of time; these are used when an electrodynamic system containing a transformer is simulated. In the latter case, the similarity of transformers

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Simulating Large Power Transformers

is expressed as a relative-unit equality of the following quantities of the simulator and the original: winding electrical resistance r_o, short-circuit losses P_k, no-load losses P_o, winding reactance, and no-load characteristics. Low electromagnetic loadings are assumed for the simulator in order to obtain low winding resistances. However, with a small transformer capacity and low electromagnetic loadings (the case of simulator), the short-circuit voltage U_k is very low. In order to raise U_k, both high and low windings are specially distributed on the cores so that their resulting unbalance sets up an additional leakage flux. As a universal simulator can hardly be designed, the transformers for an electrodynamic model of a power system are built in two types: (1) a model with equal relative losses P_k, but with nonsimilar no-load characteristics; this model aids in investigating dynamic stability of electric transmission systems; (2) a model with similar no-load characteristics but unequal relative losses P_k. The formulae determining major dimensions of the

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Simulating Large Power Transformers

first type simulators are presented as well as the formulae for I_o P_o and the short-circuit reactance X_k. The approximation formula for X_k is based on a number of assumptions. The construction of the MTO-8 34 simulator transformer is described; its winding connections and its fundamental parameters comparable with the parameters of the original are presented. Three such single-phase simulators connected in a bank can simulate the transformer bank of the Kuybyshev-Moscow transmission.

V. V. K.

Card 3/3

ELECTRICAL ENGINEERING

AUTHORS: Sukhanov, L.A. and Urusov, I.D. (Leningrad). 24-4-2/34

TITLE: Investigation of the movement of a rotor of a synchronous salient pole generator in the case of a sudden three-phase short-circuit. (Issledovanie dvizheniya rotora sinkhronnogo yavnopolyusnogo generatora pri vnezapnom trekhfaznom korotkom zamykanii).

PERIODICAL: "Izv. Ak. Nauk, Otd. Tekh. Nauk" (Bulletin of the Ac. Sc., Technical Sciences Section, 1957, No.4, pp.5-13 (USSR).

ABSTRACT: Calculation of the dynamic stability by methods generally used does not take into consideration the braking torques produced by the super-transient and aperiodic components of the short-circuit current. Investigations of this problem by Kazovskiy, E. Ya. (Elektrichestvo, 1954, No.7) showed that these moments affect appreciably the acceleration of the rotor during a short-circuit near to the terminals of the generator. The aim of the work described in this paper was to work out a sufficiently general and accurate analytical method of determination of the changes in the speed and the displacement angle of the relative movement of the rotor in three-phase short-circuits, taking into consideration a number of important factors, e.g. the speed and displacement angle components caused by the additional moment, eq.(2.5), p.7, the pulsation moment in

Card 1/4

SUKHANOV,L.A., Cand Tech Sci -- (diss) "Electrical machines and transformers in an electrodynamic model of a power system." Len 1958, 18 pp (Min of Higher Education USSR. Len Polytechnic Inst im M.I. Kalinin) 150 copies

(KL, 50-58, 126)

SUKHANOV, L.A., inzhener.

A transformer for a miniature power system. Elektrichestvo no.4: 82-84 Ap '57. (MLRA 10:5)

1.Institut elektromekhaniki Akademii nauk SSSR.
(Electric transformers)

SUKHANOV, L. A.

BOBROV, V.M.; VORONOV, A.A.; GLEBOV, I.A.; IVANOV, V.I.; KARPOV, G.V.; KASHTELYAN, V.Ye.; SEMENOV, V.V.; SIROTKO, V.K.; SIRYY, N.S.; SUKHANOV, L.A.; URUSOV, I.D.; FETISOV, V.V.; FOMINA, Ye.N.; KOSTENKO, M.P., akademik, red.; DOLMATOV, P.S., red.izd-va; SMIRNOVA, A.V., tekhn.red.

[Electrodynamic modeling of power engineering systems] Elektrodinamicheskoe modelirovanie energeticheskikh sistem. Pod red. M.P.Kostenko. Moskva, 1959. 406 p. (MIRA 13:2)

1. Akademiya nauk SSSR. Institut elektromekhaniki.
(Electric networks--Electromechanical analogies)

PHASE I BOOK EXPLOITATION SOV/4706

Akademiya nauk SSSR. Institut elektromekhaniki

Sbornik rabot po voprosam elektromekhaniki, vyp. 4: Elektricheskiye mashiny, elektricheskiy privod, elektricheskaya tyaga na peremennom toke, avtomatizirovannyy elektroprivod teleskopov, avtomaticheskoye regulirovaniye i pribory (Collection of Works on Problems in Electromechanics, No. 4: Electric Machines, Electric Drive, A-C Electric Traction, Automated Electric Drive of Telescopes, Automatic Regulation and Instruments) Moscow, 1960. 282 p. 5,500 copies printed.

Resp. Ed.: V. V. Sidel'nikov; Ed. of Publishing House: I. V. Suvorov; Tech. Ed.: R. A. Zamarayeva.

PURPOSE: This collection of works is intended for specialists in electromechanics.

COVERAGE: The collection contains 28 works divided into three sections: 1) Electric Machines, 2) Electric Drive and Electric Traction; 3) Automated Electric Drive, and Automatic Regulation and Instruments. No personalities are mentioned. References accompany most of the articles.

Danilevich, Ya. B. Computation of Leakage From the Tips of the Teeth in Electric Machines 33

Sukhanov, L. A. Special Features of Computation of No-Load Run Characteristics and of Certain Parameters of Standard Turbogenerators 37

Sirotko, V. K., and O. M. Smolin. Computation of Short-Circuit Resistances of Standard Transformers 45

Mashtelyan, V. Ye., and N. S. Siryy. Problem of Electric Braking of Synchronous Generators 56

Karpov, G. V. Improvement in Accuracy of the Experimental Determination of Losses in Synchronous Machines 62

Kasharskiy, E. G. Problem of Designing the Magnetic Circuit of an Electric Machine Made of Nonisotropic Steel 76

Onedin, L. P. Damping Moment of Selsyn Servodrive in an Induction System of Synchro-Tied Transmission With a Commutator Generator 82

ELECTRIC DRIVE. ELECTRIC TRACTION

Zavalishin, D. A., and B. P. Shubalov. Electronic-Ionic Converter of Single-Phase Current at Commercial Frequency Into Three-Phase Current, at Variable Frequency for Speed Regulation of Induction Electric Motors 92

Rodakov, V. V., and V. N. Mamedov. Simulation of Excitation Circuits of D-C Machines in Electrodynamic Simulators of Drive Systems 105

Mamedov, V. N. Distribution of Flux Density in the Air Gap of Multistage Longitudinal-Field Rotating Amplifiers 112

Zakharevich, G. V. General Rules and Methods of Investigating Steady and Transient Conditions in a Circuit of Single-phase Mercury-Arc Rectifier of an Electric Locomotive 122

Zakharevich, S.W., and V. A. Tikan. Investigation of Transients in the Circuit of a Single-Phase Mercury-Arc Rectifier of an Electric Locomotive During Backfire and Misfiring of Rectifier Tubes 134

Lunkin, V. M. Single-Phase Series Commutator Traction Motor For an Electric Locomotive and Electric-Motor-Car Train 148

(5)

Sukhanov, L.A.

SUKHANOV, L. A

PHASE I BOOK EXPLOITATION SOV/4172

Akademiya nauk SSSR. Institut elektromekhaniki

Sbornik rabot po voprosam elektromekhaniki, vyp. 3: Energeticheskiye sistemy, elektromashinostroyeniye, elektricheskaya tyaga, avtomatizirovannyy elektroprivod, avtomaticheskiye i telemekhanicheskiye sistemy, elektrosvarochnoye oborudovaniye (Collected Papers on Electromechanical Problems, no. 3: Power Systems, Electric Machinery Construction, Electric Traction, Automated Electric Drives, Automatic and Telemechanical Systems, Electric Welding Equipment) Moscow, Izd-vo AN SSSR, 1960. 314 p. Errata slip inserted. 5,000 copies printed.

Resp. Ed.: V.V. Sidel'nikov; Ed. of Publishing House: I.V. Suvorov; Tech. Ed.: R.A. Arons.

PURPOSE: This collection of articles is intended for scientific and technical personnel.

COVERAGE: This book is divided into sections according to the title. The scientific articles are preceded by a brief biography of Academician M.P. Kostenko, Lenin Prize Laureate, Director of the Institut elektromekhaniki AN SSSR (Institute of Electromechanics, Academy of Sciences USSR). References accompany most of the articles.

Card 1/13

Collected Papers (Cont.)

Sirotko, V.K., L.A. Sukhanov, and G.M. Smolin. 3.5 kva Transformer Model 81
The article contains a detailed description of the MTO-3.5 transformer designed at the Institute of Electromechanics, Academy of Sciences USSR. Investigations on the power system electrodynamic simulator of this Institute have demonstrated the adequacy of the simulator.

Sukhanov, L.A. Additional Short-Circuit Losses in Simulator Synchronous Generators With Nonsalient Poles 89
The author describes the causes of additional short-circuit losses and seeks ways of reducing them. From experimental data, he concludes that in a correctly designed simulator generator with nonsalient poles additional short circuit losses could be reduced, but not below 0.4%.

Orurk, I.A. Rules for Regulating the Excitation in Synchronous Generators 100
The author refers to the works of M.P. Kostenko and I.D. Urusov which established the fundamentals of rules for regulating the excitation in synchronous generators. He examines certain additional problems, in particular the operation of the machine in a zone of artificial stability. For this, he uses approximate equations for a synchronous machine expressed according to the Lebedev-Zhdanov method.

SUKHANOV, L.A. (Leningrad)

Use of an electrodynamic model for studying a 2000 km. two-network 600 kv. a.c. power transmission system. Izv. AN SSSR. Otd. tekh. nauk Energ. i avtom no.1:35-40 Ja-F '61. (MIRA 14:3)
(Electric network analyzers)

SUKHANOV, L.A., kand.tekhn.nauk (Leningrad)

Approximate calculation of the effect of additional moments of hydroelectric generators on the dynamic stability of electirc power transmission. Elektrichestvo no.2:91-93 F '61. (MIRA 14:3)

(Hydroelectric power stations)

SUKHANOV, L.A.

Use of a model for studying the voltage distribution in a long balanced 600 kv. electric power transmission line. Sbor. rab. po vop. elektromekh. no.6:160-165 '61. (MIRA 14:9)
(Electric power distribution--Models)
(Electric network analyzers)

SUKHANOV, L.A.

Effect of forced excitation on the motion of a rotor at nonsymmetrical short-circuits of the salient-pole generator feeding an electric power system via a transmission line. Sbor. rab. po vop. elektromekh. no.6:180-187 '61. (MIRA 14:9)
(Electric power distribution) (Electric generators)

SUKHANOV, L.A. (Leningrad); PETISOV, V.V. (Leningrad); SIDEL'NIKOV, B.V. (Leningrad)

Methodology for calculating electromechanical transient processes in multiengine systems with consideration of nonlinear characteristics. Izv. AN SSSR. Otd. tekh. nauk. Energ. i avtom. no.3: 73-83 My-Je '62. (MIRA 15:6)

(Electric machinery)

SUKHANOV, L.A.

Results of the use of an electrodynamic network analyzer in studying a large a.c. power transmission system with two supporting synchronous compensators. Sbor.rab.po vop.elektromekh.no.8:60-68 '63. (MIRA 16:5)

(Electric power distribution—Alternating current)
(Electric network analyzers)

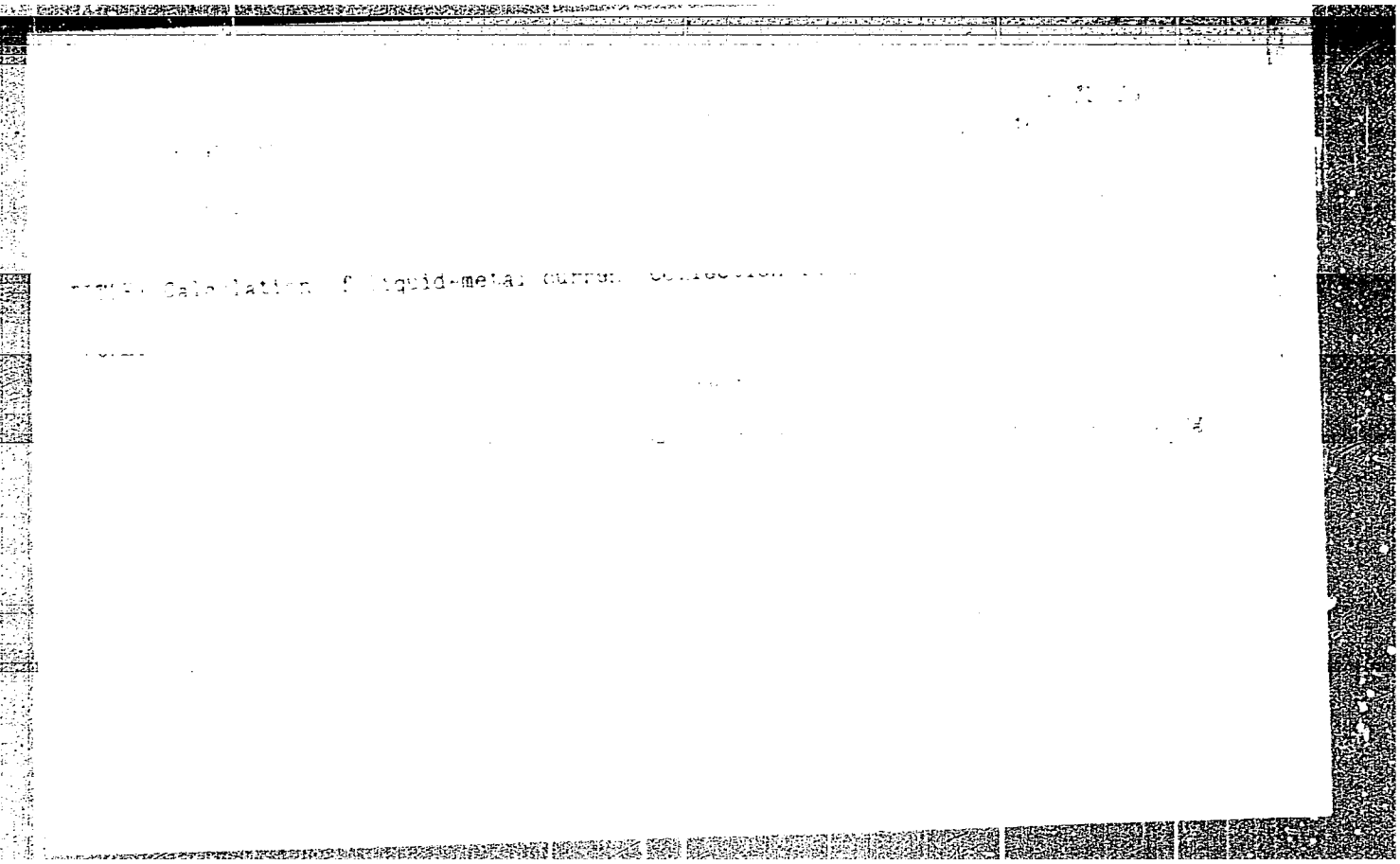
SUKHANOV, L.A.

Calculation of the inductive reactance of the leakage of the windings of model turbogenerators. Sbor.rab.po vop.elektromekh.no.8:296-301 '63. (MIRA 16:5)

(Turbogenerators—Windings)

VOLKOVA, Ye.A.; KAZOVSKIY, Ye.Ya., doktor tekhn. nauk; RUBISOV, G.V.; SAFAROV, G.M.; SUKHANOV, L.A.

Calculation of the transient processes of synchronous machines in faulty operation by using electronic digital computers. Elektrotekhnika 35 no.7:11-15 '64. (MIRA 17:11)



L 13348-66 EWT(1)/ETC(f)/EWG(m)/EWA(h) TT/AT

ACC NR: AT6000058 SOURCE CODE: UR/0000/65/000/000/0279/0292

AUTHOR: Sukhanov, L. A.

27

B+1

ORG: none

TITLE: Calculation of the magnetic circuit of a cylindrical-rotor unipolar machine

SOURCE: AN SSSR, Institut elektromekhaniki. Elektricheskiye mashiny; issledovaniya, voprosy teorii i rascheta (Electrical machinery; research, problems in theory and design), Leningrad, Izd-vo Nauka, 1965, 279-292

TOPIC TAGS: generator, magnetic circuit, circuit design

ABSTRACT: Considerable difficulties arise in the design of some elements of the modern cylindrical-rotor unipolar generator; determination of the rotor magnetic state, ring-pole leakage fluxes, and kindred points has been only roughly treated in modern literature (P. Klaudy, El. und Maschinenbau, 78, no. 3, 1961; Y. Poulain, Bull. Soc. Franc. El., no. 23, 1961). The present article offers more accurate techniques for calculating the magnetizing force required for the rotor (allowing for the strong saturation due to the load current flowing in the rotor) and the leakage

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L 13348-66

ACC NR: AT6000058

factor of the field winding (a formula for this factor is developed which neglects the field-coil curvature). The current spreading in the rotor drum is analyzed, as is the magnetic field in the rotor steel under load conditions. A design formula for the rotor magnetizing force is derived. Orig. art. has: 7 figures, 43 formulas, and 1 table.

SUB CODE: 09/ SUBM DATE: 01Mar65 / ORIG REF: 002 / OTH REF: 004

Card 2/2 F(1)

SIDEL'NIKOV, Boris Viktorovich, assistent; SUKHANOV, Lev Aleksandrovich, kand. tekhn.nauk, starshiy nauchnyy sotrudnik; YUSHCHENKO, Anatoliy Grigor'yevich, inzh.; FETISOV, Viktor Vladimirovich, kand.tekhn.nauk, dotsent

Analysis of transient processes in a two-speed induction motor with a choke in the stator circuit and intermittent power supply. Izv.vys. ucheb.zav.; elektromekhanika 8 no.6:644-654 '65. (MIRA 18:8)

1. Kafedra elektricheskikh mashin Leningradskogo politekhnicheskogo instituta (for Sidel'nikov, Fetisov). 2. Institut elektromekhaniki, Leningrad (for Sukhanov). 3. Leningradskiy politekhnicheskiy institut (for Yushchenko).

L 14053-66 EWT(m)/EWP(w)/EPF(n)-2/T/EWP(t)/EWP(z)/EWP(b) IJP(c) JD/WW/HW/JG/
ACC NR: AT600057 DJ/GS SOURCE CODE: UR/0000/65/000/000/0267/0278

AUTHOR: Sukhanov, L. A.; Bobkov, Yu. A.; Safiullina, R. Kh.

ORG: none

TITLE: Current collectors with liquid metal contact for acyclic machines

SOURCE: AN SSSR. Institut elektromekhaniki. Elektricheskiye mashiny; issledovaniya, voprosy teorii i rascheta (Electrical machinery; research, problems in theory and design), Leningrad, Izd-vo Nauka, 1965, 267-278

TOPIC TAGS: electric generator, liquid metal, slip ring, direct current, electric engineering, friction loss

ABSTRACT: The author discusses various mechanical losses in homopolar dynamos with current collectors based on low-melting alloys. Current collector designs are divided into two basic categories: 1. the ring type in which the channel between the contact surfaces is completely filled with the liquid metal; 2. the jet type in which contact is made at individual points around the circumference by a thin pressurized jet of liquid metal. The advantages and disadvantages of each of these

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L 11053-66
ACC NR: AT6000057

types are discussed. Tests of a mercury jet contact show a resistance of less than 10^{-3} Ω for a linear rotor velocity of 150 m/sec, a current of 1000 amps and mechanical losses in the jet of about 750 w. The authors describe the centrifugal ring contact in horizontal and vertical homopolar machines. Electrical losses in this type of current collector are analyzed. Consideration is given to the formation of a contaminant layer by the interaction between the liquid metal and the surface of the current collector rings. Experimental data show an increase in equivalent resistance with time which differs for various metals. It is found that nickel is especially suitable for use in current collectors. Formulas are given for determining losses due to friction in the contact zone. The various formulas given for electrical and mechanical losses are used as a basis for deriving analytical expressions for selecting optimum dimensions of the contact zone. Orig. art. has: 4 figures, 4 tables, 22 formulas.

SUB CODE: 10/ SUBM DATE: 01Mar65/ ORIG REF: 002/ OTH REF: 007

Card 2/2

L 14052-66 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b) JD/WW/JG/DJ
ACC NR: AT6000059 SOURCE CODE: UR/0000/65/000/000/0292/0299

AUTHOR: Sukhanov, L. A.

69
B+1

ORG: none

TITLE: Analysis of the stability of liquid position in the ring current collector of an acyclic machine during current overload

SOURCE: AN SSSR. Institut elektromekhaniki. Elektricheskiye mashiny; issledovaniya, voprosy teorii i rascheta (Electrical machinery; research, problems in theory and design), Leningrad, Izd-vo Nauka, 1965, 292-299

TOPIC TAGS: electric generator, direct current, liquid metal, slip ring

ABSTRACT: The authors analyze the stability in the position of the liquid metal medium in the annular channel between the current collector surfaces of a homopolar generator. Formulas are derived for calculating the effect of centrifugal and electromagnetic forces on the liquid particles in the current collector. The stable position of the liquid metal medium during operation of the generator is determined by equilibrium between electromagnetic and centrifugal forces. This condition is

Card 1/2

2

L 11052-66

ACC NR: AT6000059

used as a basis for determining the limiting overload current for such a machine. Orig. art. has: 3 figures, 14 formulas.

SUB CODE: 10/ SUBM DATE: 01Mar65/ ORIG REF: 002/ OTH REF: 001

BVK

Card 2/2

SUKHANOV, L.A. (Leningrad); RUBISOV, G.V. (Leningrad); VOLKOVA, Ye.A. (Leningrad)

Increase in the dynamic stability of enclosed hydrogenerators. Izv. AN SSSR. Energ. i transp. no.1:123-128 Ja-F '64. (MIRA 17:4)

PETLYAKOV, M.M., inzh.; SHAPOVALOV, A.P., inzh.; GUSAKOV, A.N., inzh.; UDOVICHENKO, N.V., inzh.; BESPALOV, V.N., inzh.; KUZNETSOV, D.K., inzh.; SUKHANOV, L.F., inzh.

Obtaining a flat sheet of transformer steel. Stal' 25 no.12: 1132-1134 D '65. (MIRA 18:12)

1. Novolipetskiy metallurgicheskiy zavod i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P. Bardina.

1. SUKHANOV, M., Eng.

2. USSR (600)

4. Mineral Wool

7. Coke economy in mineral wool plants. Za ekon mat. No 1 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SUKHANOV, M.

"Center for Agricultural Economic Culture on the Bud'oni Collective Farm" p. 36, (KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 1, Jan. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4 No. 5, May 1955, Uncl.

SUKHANOV, M.

"Eight Years Since the Introduction of Agrarian Reforms in Atbanta. Tr. from the Albanian." p. 38,
(KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 1, Jan. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

SUKHANOV, M.

"Agrarian Reforms and Women in the New China. Tr. from the Russian." p. 38, (KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 1, Jan. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4 No. 5, May 1955, Uncl.

SUKHANOV, M.

"Electrification of Rural Villages." p. 39,
(KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 1, Jan. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

SUKHANOV, M.

"Green Fodder Supply"; a Motion-Picture Review." p. 40,
(KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 1, Jan. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

SUKHANOV, M., kand. na. tekhn. nauki

Disklike glider. Aviats kosmonavt 6 no.9:4 '64.

GORSHENKOV, A.D.; SUKHANOV, M.A.

Pneumatic assembling cramps in the manufacture of musical keyboard instruments. Der. prom. 11 no.8:23-25 Ag '62. (MIRA 17:2)

1. Moskovskaya fabrika klavishnykh instrumentov "Lira".

SUKHANOV, Mikhail Aleksandrovich; NIKIFOROV, I.A., kand. tekhn. nauk, nauchn. red.; GLAZUNOVA, Z.M., red.izd-va; SHERSTNEVA, N.V., tekhn. red.

[Effectiveness of using insulating materials in rural construction] Effektivnost' primeneniia teploizoliatsionnykh materialov v sel'skom stroitel'stve. Moskva, Gosstroiizdat, 1963. 101 p. (MIRA 17:2)

SUKHANOV. M. A.

Peat Industry

Mechanizing the cutting and loading of peat for production on insulating plates., Torf. prom., No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, October, 1952. UNCLASSIFIED.

ANTONOV, V.Ya., kand.tekhn.nauk; BEZZUBOV, N.D., kand.tekhn.nauk; BELOKOPYTOV, I.Ye., kand.sel'skokhoz.nauk; BLYUMENBERG, V.V., kand.tekhn.nauk; BOGDANOV, N.N., kand.tekhn.nauk; BRAGIN, N.A., inzh.; VASIL'YEV, Yu.K., inzh.; VINOGRADOV, V.A., inzh.; ROZENBERG, B.I., inzh.; GORGIDZHANYAN, S.A., kand.tekhn.nauk; ZIZA, A.A., kand.sel'skokhoz.nauk; KALABUKHOV, M.V., agronom-meliorator; KOLOTUSHKIN, V.I., inzh.; KORCHUNOV, S.S., kand.tekhn.nauk; KRYUKOV, M.N., dotsent; VAVULO, V.A., inzh.; NAUMOV, D.K., kand.tekhn.nauk; OLENIN, A.S., inzh.; PROVORKIN, A.S., inzh.; PROKHOROV, N.I., dotsent; RASKIN, G.I., inzh.; SAVENKO, I.V., inzh.; SERGEYEV, B.F., kand.tekhn.nauk; STOYLIK, M.A., inzh.; SUKHANOV, M.A., inzh.; TOPOL'NITSKIY, N.M., kand.tekhn.nauk; TYURMNOV, S.N., doktor biol.nauk, prof.; FATCHIKHINA, O.Ye., kand.sel'skokhoz.nauk; TSVETKOV, B.I., inzh.; CHUBAROV, N.D., inzh.; MANDEL'BAUM, A.I., inzh.;

(Continued on next card)

ANTONOV, V.Ya.---(continued) Card 2.

YARTSEV, A.K.; SAMSONOV, N.N., inzh., glavnyy red.; BERSHADSKIY, L.S., inzh., nauchnyy red.; VARENTSOV, V.S., kand.tekhn.nauk, nauchnyy red.; VYSOTSKIY, K.P., kand.tekhn.nauk, nauchnyy red.; GORINSHTEYN, L.L., kand.tekhn.nauk, nauchnyy red.; GORYACHKIN, V.G., prof., nauchnyy red.; YEFIMOV, P.N., kand.tekhn.nauk, nauchnyy red.; KUZHMAN, G.I., kand.tekhn.nauk, nauchnyy red.; KULAKOV, N.N., kand. tekhn.nauk, nauchnyy red.; KUTAIS, L.I., prof., doktor tekhn.nauk, nauchnyy red.; MIRKIN, M.A., inzh., nauchnyy red.; SEMENSKIY, Ye.P., kand.tekhn.nauk, nauchnyy red.; SOKOLOV, A.A., kand.tekhn.nauk, nauchnyy red.; KHAZANOV, Ya.N., dotsent, nauchnyy red.; KHALUGO, A.K., inzh., nauchnyy red.; TSUPROV, S.A., dotsent, nauchnyy red.; SHTEYNBOK, G.D., inzh., nauchnyy red.; KOLOTUSHKIN, V.I., red.; SKVORTSOV, I.M., tekhn.red.

[Reference book on peat] Spravochnik po torfu. Moskva, Gos.energ. izd-vo, 1954. 728 p. (MIRA 13:7)

1. Chlen-korrespondent AN BSSR (for Goryachkin).
(Peat--Handbooks, manuals, etc.)

SUKHANOV, M.A., inzh.; VARENTSOV, V.S., red.; LARIONOV, G.Ye., tekhn. red.

[Heat insulating materials made from peat] Teploizoliatsionnye materialy iz torfa. Moskva, Gos. energ. izd-vo, 1960. 87 p. (MIRA 14:9)

(Peat) (Insulating materials)

SUKHANOV, M., inzh.

Manufacture of peat slabs. Sel'.stroi. 15 no.6:19-20 Je '60. (MIRA 13:8)
(Peat) (Insulation(Heat))

SUKHANOV, M.A., inzh.

Peat insulating panels. Torf.prom. 37 no.1:28-29 '60.
(MIRA 13:6)

1. Giprotorfrazvedka.
(Peat) (Inmulating materials)

SUKHANOV, M.A., inzh.

Use of insulating peat plates in the construction of large panels.
Torf. prom. 37 no. 3:22-25 '60. (MIRA 14:1)

1. Giprotorf.
(Peat) (Building materials)

SUKHANOV, M.A.

Development of the industry of peat insulating materials. Torf.prom. 38 no.1:38 '61. (MIRA 14:2)
(Peat) (Insulating materials)

GORSHENKOV, A.D., inzh.; SUKHANOV, M.A., inzh.

Pneumatic hoist table for the "Mikhoma" hydraulic press.
Der.prom. 11 no.6:20-21 Je '62. (MIRA 15:6)

1. Moskovskaya fabrika klavishnykh instrumentov "Lira".
(Veneers and veneering--Equipment and supplies)
(Hoisting machinery)

TSUPROV, S.A.; SUKHANOV, M.A.

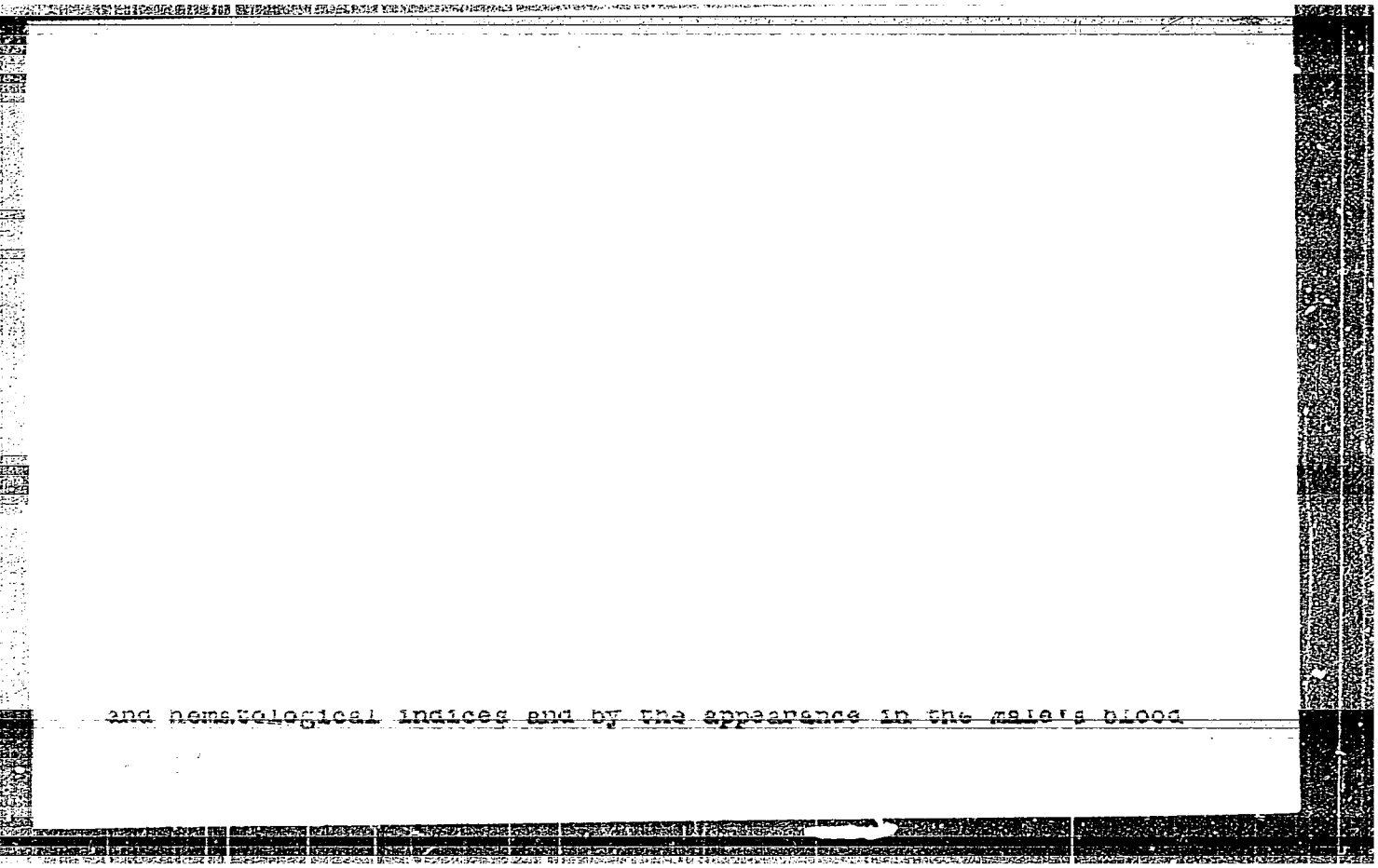
Chronicle. Torf.prom. 40 no.5:35-36 '63. (MIRA 16:8)
(Peat industry)

SUKHANOV, M.A., inzh.

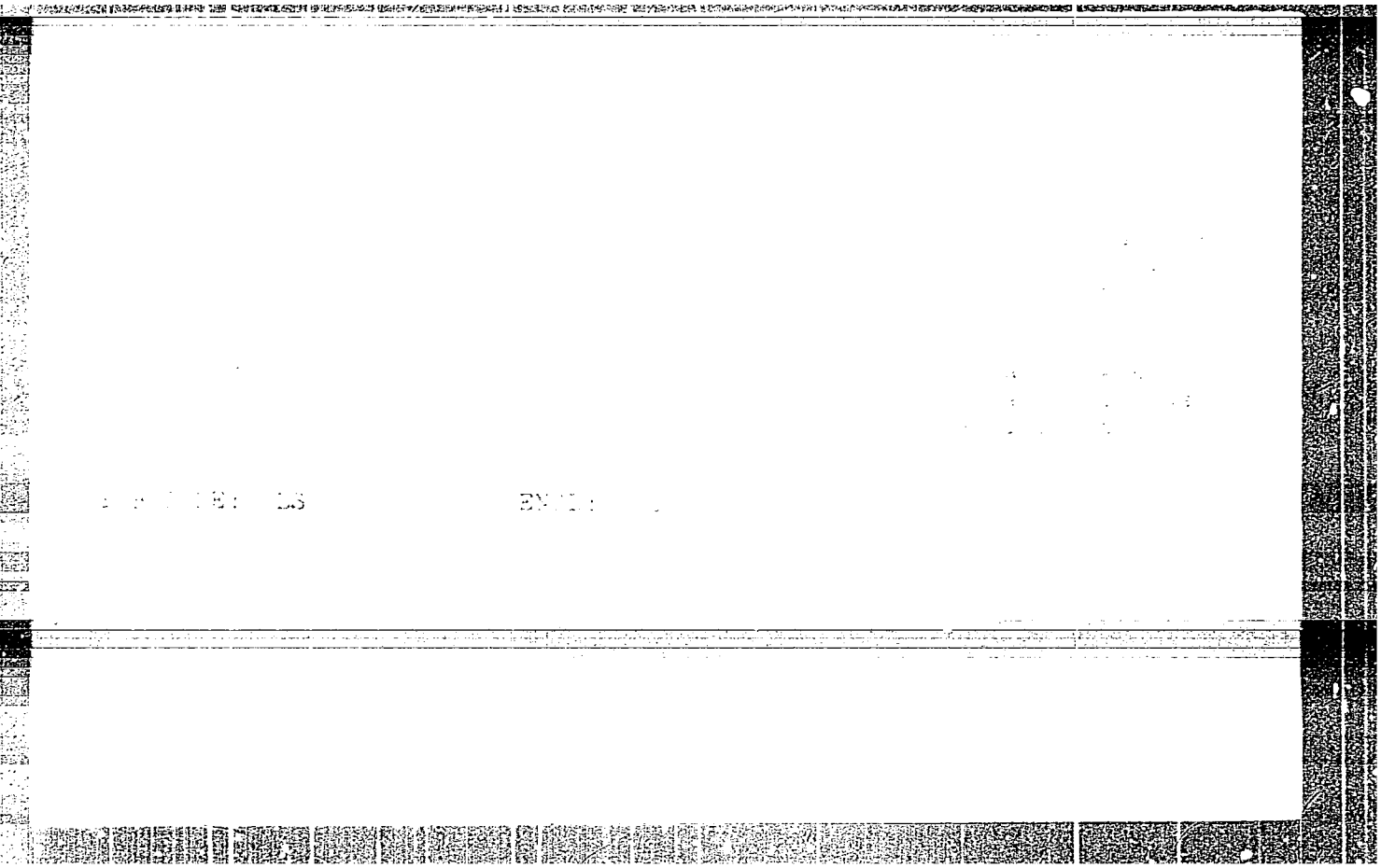
Standardization of parts for dining tables at the "Lira" Moscow Factory. Der. prom. 14 no.2:21-22 F '65.
(MIRA 18:6)

GORSHENKOV, A.D., inzh.; SUKHANOV, M.A., inzh.

Pneumatic glue setting frame in the manufacture of pianos.
Der. prom. 14 no.8:26-28 Ag '65. (MIRA 18:10)



and hematological indices and by the appearance in the male's blood



SUMMARY, M. P. Cand. Tech. Sci.

Dissertation: "Elementary Piction-Stream Theory of a Propeller." Moscow Order of Lenin Aviation Inst imeni S. Ordzhonikidze, 15 Dec 47.

SO: Vechernyaya Moskva, Dec, 1947 (Project #17136)

ACCESSION NR: AP4020523 S/0029/64/000/002/0016/0017

AUTHOR: Sukhanov, M. (Candidate of technical sciences)

TITLE: Attention! In the Air.....

SOURCE: Tekhnika - molodezhi, no. 2, 1964, 16-17

TOPIC TAGS: "Diskoplan-1" glider, wing span, wing area, weight, aerodynamics, dynamic stability, maneuverability, steel piano wire, percale covering, dural lip, aileron, three-point land, "Alouette"

ABSTRACT: Young scientists and social-worker designers in 1950 created the "Diskoplan-1" glider, with 3.5 m wing span, 10 sq m wing area, 230 kg flight wing, maximum aerodynamic quality $K_{Max} = 7$, to test unusual aerodynamic designs more cheaply and safely. The main distinctive feature of its circular wing is the smooth flow of air around it, even at angles of attack up to 45°, with its lifting power increasing continually, as shown in a graph. Hence, it does not go into a spin under any flight conditions. Only a straight, extremely

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ACCESSION NR: AP4020523

stable parachute jump is possible from maximum angles. The glider has good dynamic stability and maneuverability under all conditions. The round wing of the 1962 model, "Diskoplan-2", is without longerons or ribs, and shaped like a huge bicycle wheel, the rim and hub of which are guyed with 0.2 mm steel piano wire. The two-layered percale covering combined with a wire net give it a two-cone profile. Sharp dural lips around the rim improve the aerodynamics and stability and give it a "finished supersonic look." Wing diameter 5 m, bearing surface 20 sq m, flight weight 240 kg, specific load on wing only 12 kg/sq m. Steered by revolving rudder and [illegible]erons, serving as ailerons and altitude rudder. The "Air-cushion" effect stabi[illegible]es it automatically in descent, so that it can make a safe three-point landing without being steered. The article ends with a brief account of supersonic disk-shaped plane development (including "Alouette") by NASA and leading US airplane companies, desired characteristics and purposes. Orig. art. has: 5 graphs of performance and 2 photos.

Card 2/[illegible]

SUKHANOV, M.Ye.

Combined treatment of villous tumors of the bladder. Urologiia no.3:38-41 J1-S '55. (MLRA 8:10)

1. Iz Ukrainskogo rentgeno-radiologicheskogo onkologicheskogo instituta (dir. dotsent Ye.A.Bazlov)
(BLADDER, neoplasms, villous, ther.)

SUKHANOV, M. Ye., dotsent

Tumors of the testis. Urologiia no.6:38-42 '61. (MIRA 15:4)

1. Iz Khar'kovskogo instituta meditsinskoy radiologii.

(TESTICLE—TUMORS)

SUKHANOV, N.

For further improvement in the work of savings banks. Fin. SSSR 18 no.4:33-37 Ap '57. (MLRA 10:6)

1. Zamestitel' nachal'nika Glavnogo upravleniya Gosudarstvennoy trudovoy sberegatel'noy kassy i goskredita.
(Savings banks)

SUKHANOV, N.

Our Palace of Culture prepares for the Congress. Sov.shakht. 10 no.7:12 Jl '61. (MIRA 14:8)

1. Predsedatel' pravleniya Dvortsa kul'tury "40 let Oktyabrya", g. Novogrodovka, Stalinskoy oblasti.
(Donets Basin--Coal miners)